

HISTORIC COLUMBIA RIVER HIGHWAY,  
ONEONTA GORGE CREEK BRIDGE  
Troutdale vicinity  
Multnomah County  
Oregon

HAER No. OR-36-K

HAER  
ORE  
26-TROUT.Y  
1K-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
National Park Service  
Department of the Interior  
P.O. Box 37127  
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

HISTORIC COLUMBIA RIVER HIGHWAY,  
ONEONTA GORGE CREEK BRIDGE

HAER No. OR-36-K

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Location: Spanning Oneonta Creek, Multnomah County,  
Oregon, on the old alignment of the Historic  
Columbia River Highway, beginning at milepost  
34.3.

UTM: 10/572230/5048650  
Quad: Multnomah Falls, Oreg.--Wash.

Date of  
Construction: 1914; bypassed 1948

Engineer: K. P. Billner, designing engineer, Oregon  
State Highway Department

Builder: The Construction Company, Portland

Owner: Oregon Department of Transportation

Present Use: Pedestrian traffic and vehicular parking

Significance: One of two nearly identical reinforced-  
concrete girder trestles on the Historic  
Columbia River Highway and one of four extant  
structures on the route that have a  
distinctive cap and arch concrete guard rail  
system.

Historian: Robert W. Hadlow, Ph.D., September 1995

Transmitted by: Lisa M. Pfueller, September 1996

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PROJECT INFORMATION

This recording project is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering and industrial works in the United States. The HAER program is administered by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Division of the National Park Service, U.S. Department of the Interior. The Historic Columbia River Highway Recording Project was cosponsored in 1995 by HABS/HAER, under the general direction of Robert J. Kapsch, Ph.D., Chief, and by the Oregon Department of Transportation (ODOT), Bruce Warner, Region One Manager; in cooperation with the US/International Committee on Monuments and Sites (ICOMOS), the American Society of Civil Engineers (ASCE), and the Historic Columbia River Highway Advisory Committee.

Fieldwork, measured drawings, historical reports, and photographs were prepared under the direction of Eric N. DeLony, Chief of HAER; Todd A. Croteau, HAER Architect, and Dean A. Herrin, Ph.D., HAER Historian. The recording team consisted of Elaine G. Pierce (Chattanooga, Tennessee), Architect and Field Supervisor; Vladimir V. Simonenko (ICOMOS/Academy of Fine Arts, Kiev, Ukraine), Architect; Christine Rumi (University of Oregon) and Pete Brooks (Yale University), Architectural Technicians; Helen I. Selph (California State Polytechnic University, Pomona) and Jodi C. Zeller (University of Illinois, Urbana-Champaign), Landscape Architectural Technicians; Robert W. Hadlow, Ph.D. (ASCE/Pullman, Washington), Historian; and Jet Lowe (Washington, DC), HAER Photographer. Jeanette B. Kloos, ODOT Region One Scenic Area Coordinator; and Dwight A. Smith, ODOT Cultural Resources Specialist, served as department liaison.

Additional information about the Historic Columbia River Highway can be found under the following HAER Nos.:

OR-36	HISTORIC COLUMBIA RIVER HIGHWAY
OR-36-A	HISTORIC COLUMBIA RIVER HIGHWAY, SANDY RIVER BRIDGE AT TROUTDALE
OR-36-B	HISTORIC COLUMBIA RIVER HIGHWAY, SANDY RIVER BRIDGE (Stark St. Bridge)
OR-36-C	HISTORIC COLUMBIA RIVER HIGHWAY, CROWN POINT VIADUCT
OR-36-D	HISTORIC COLUMBIA RIVER HIGHWAY, CROWN POINT
OR-24	LATOURELL CREEK BRIDGE
OR-23	SHEPPERDS DELL BRIDGE
OR-36-E	HISTORIC COLUMBIA RIVER HIGHWAY, BRIDAL VEIL FALLS BRIDGE
OR-36-F	HISTORIC COLUMBIA RIVER HIGHWAY, WAHKEENA FALLS FOOTBRIDGE

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OR-36-G HISTORIC COLUMBIA RIVER HIGHWAY, WEST MULTNOMAH FALLS  
VIADUCT  
OR-36-H HISTORIC COLUMBIA RIVER HIGHWAY, MULTNOMAH CREEK BRIDGE  
OR-36-I HISTORIC COLUMBIA RIVER HIGHWAY, MULTNOMAH FALLS  
FOOTBRIDGE (Benson Footbridge)  
OR-36-J HISTORIC COLUMBIA RIVER HIGHWAY, EAST MULTNOMAH FALLS  
VIADUCT (Bridge No. 841)  
OR-36-L HISTORIC COLUMBIA RIVER HIGHWAY, ONEONTA TUNNEL  
OR-36-M HISTORIC COLUMBIA RIVER HIGHWAY, HORSETAIL FALLS BRIDGE  
OR-49 MOFFETT CREEK BRIDGE  
OR-36-N HISTORIC COLUMBIA RIVER HIGHWAY, TOOTHROCK & EAGLE  
CREEK VIADUCTS  
OR-36-O HISTORIC COLUMBIA RIVER HIGHWAY, TOOTHROCK TUNNEL  
OR-36-P HISTORIC COLUMBIA RIVER HIGHWAY, EAGLE CREEK BRIDGE  
OR-36-Q HISTORIC COLUMBIA RIVER HIGHWAY, EAGLE CREEK RECREATION  
AREA (Forest Camp)  
OR-36-R HISTORIC COLUMBIA RIVER HIGHWAY, MITCHELL POINT TUNNEL  
& VIADUCT (Tunnel of Many Vistas)  
OR-36-T HISTORIC COLUMBIA RIVER HIGHWAY, MOSIER TWIN TUNNELS  
OR-36-U HISTORIC COLUMBIA RIVER HIGHWAY, MOSIER CREEK BRIDGE  
(Bridge No. 498)  
OR-30 DRY CANYON CREEK BRIDGE  
OR-27 MILL CREEK BRIDGE  
  
OR-56 COLUMBIA RIVER HIGHWAY BRIDGES

For shelving purposes at the Library of Congress, Troutdale  
vicinity in Multnomah County was selected as the "official"  
location for the various structures in the Historic Columbia  
River Highway documentation project (HAER No. OR-36).

## HISTORIC COLUMBIA RIVER HIGHWAY

The Pacific Northwest's Columbia River Highway, later renamed the Historic Columbia River Highway (HCRH), was constructed between 1913 and 1922. It is one of the oldest scenic highways in the United States. Its design and execution were the products of two visionaries: Samuel Hill, lawyer, entrepreneur, and good roads promoter and Samuel C. Lancaster, engineer and landscape architect, with the assistance of several top road and bridge designers. In addition, many citizens provided strong leadership and advocacy for construction of what they saw as "The King of the Roads."

Often, the terms "scenic highways" and "parkways" are used synonymously. Scenic highways are best described as those roads constructed to provide motorists with the opportunity to see up-close the landscape's natural beauty. Parkways are roads or streets often associated with city beautiful campaigns prevalent in the United States in the late 19th and early 20th centuries. They were part of a movement to create park-like settings out of wastelands. Many of the scenic highways in the United States are associated with the country's national park system and were built in the years following the First World War.

Beginning in the 1910s and early 1920s, the National Park Service (NPS) began construction of well-engineered paved roads with permanent concrete and masonry bridges and viaducts to make its park sites more accessible to an increasingly mobile tourist population. These included roads such as "Going-to-the-Sun Highway" in Glacier National Park and "All-Year Highway" in Yosemite National Park. The Historic Columbia River Highway, unlike many of its counterparts, was constructed through county-state cooperation. It became a state-owned trunk route or highway, part of a growing system of roads that criss-crossed Oregon.

Samuel Hill, once an attorney for James J. Hill and his large railroad empire, and later a Pacific Northwest investor and entrepreneur, was the state of Washington's most vocal good roads' spokesman in the late 19th and early 20th centuries. He promoted good roads at Seattle's Alaska-Yukon-Pacific Exposition in 1905, and shortly thereafter helped to establish the department of highway engineering at the University of Washington. With little success in convincing the Washington State Legislature to fund a major highway along the Washington side of the Columbia River, Hill found more receptive ears and pocketbooks with Oregon lawmakers and Portland area businessmen. Construction began on the Historic Columbia River Highway in

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1913. By 1922, it was complete, covered in a long-wearing and smooth-riding asphaltic-concrete pavement.<sup>1</sup>

Hill hired Samuel Lancaster, an experienced engineer and landscape architect to design the Historic Columbia River Highway. Lancaster was noted for the boulevards that he created around Seattle's Lake Washington in the first decade of the 20th century as a component of the city's Olmsted-designed park system. In 1909 Lancaster became the first professor of highway engineering in Hill's department at the University of Washington. Lancaster had accompanied Hill and others to Paris in 1908 for the First International Road Congress, and afterwards the delegation toured western Europe to learn about continental road-building techniques. Seeing roads in the park-like setting of the Rhine River Valley inspired Hill to build a highway along the Columbia River Gorge. By 1912, Lancaster was conducting road-building experiments at Hill's estate, Maryhill, 100 miles east of Portland on the Washington side of the Columbia. The route they subsequently created was not a parkway, in the truest sense, but instead a scenic highway.<sup>2</sup>

The Columbia River Gorge's natural features distinguish it as the ideal setting. This relationship between the natural landscape and the Historic Columbia River Highway was described best by locating engineer John Arthur Elliott. He wrote, "All the natural beauty spots were fixed as control points and the location adjusted to include them." The road passed several waterfalls and rock outcroppings, including Thor's Heights (Crown Point), Latourell Falls, Shepperd's Dell, Bishop's Cap, Multnomah Falls, Oneonta Gorge and Falls, Horsetail Falls, Wahkeena Falls, and Tooth Rock. Natural features were made an integral component of the HCRH.<sup>3</sup>

According to Lancaster, "There is but one Columbia River Gorge [that] God put into this comparatively short space, [with] so many beautiful waterfalls, canyons, cliffs and mountain domes." He believed that "men from all climes will wonder at its wild grandure [sic] when once it is made accessable [sic] by this great highway." In addition, the promoters sought to create a route that utilized the most advanced techniques available for road construction. In reflecting on the work's progress, Lancaster acknowledged that because of the country's rugged climate, with its wind and rain and winter weather, it had been "slow and tedious and somewhat more expensive than ordinary work." Nevertheless, he and his associates felt they were accomplishing a worthwhile task because, "for if the road is completed according to plans, it will rival if not surpass anything to be found in the civilized world."<sup>4</sup>

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In an more practical light, many observers saw the Historic Columbia River Highway as a lifeline connecting Portland with the many commercial and agricultural areas along the Columbia River. Some even envisioned it as part of a spider web of similarly constructed routes radiating out towards central and eastern Washington and northern Idaho, and meeting routes leading to other parts of the region and nation.

The HCRH was a technical and civic achievement of its time, successfully mixing sensitivity to the magnificent landscape and ambitious engineering. The highway has gained national significance because it represents one of the earliest applications of cliff-face road building as applied to modern highway construction. Lancaster emulated the European styles of road building in the Columbia River Gorge, while also designing and constructing a highway to advanced engineering standards. Throughout the route, engineers held fast to a design protocol that included accepting no grade greater than 5 percent, nor laying out a curve with less than a 200' turning radius. In rare cases where a tighter curve was used, Lancaster reduced grades and widened pavement. The use of reinforced-concrete bridges, combined with masonry guard rails, guard walls, and retaining walls brought together the new with the old - the most advanced highway structures with the tried and tested. In building the Historic Columbia River Highway, Lancaster artfully created an engineering achievement sympathetic to the natural landscape.<sup>5</sup>

In the days before the formation of a comprehensive state highway plan, Multnomah, Hood River, and Wasco counties cooperated, sometimes unwillingly, with the newly-formed Oregon State Highway Commission (1913) in constructing the HCRH. Initially a group of recently elected Multnomah County commissioners, strong supporters of the proposed route, resolved that the highway commission take charge of its road building activities, with access to \$75,000 in county tax revenues. Soon crews surveyed the route through Multnomah County and constructed one mile of road.

Boosters stumped for the route's completion to the Hood River County line. Local clubs sent out men and boys for weekend work parties to show public support for the undertaking. One photograph from the period, depicts work parties with picks and shovels in hand and placards such as "Gang No. 7, Portland Ad Club, Stalwarts," or "Gang No. 3, Portland Realty Board, We will ROCK the Earth." The highway received much patronage, although some citizens were less than enthusiastic about its construction. Opponents showed their views with placards declaring, "I WON'T WORK, To Hell With Good Roads, We Don't Own Autos." Many "mossbacks" had no use for good roads and were satisfied

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traveling the network of rutted, narrow, steeply-graded backwoods trails. Nevertheless, the public generally supported the highway's construction. Multnomah County Commissioners levied a direct tax sufficient to fund road building to the Hood River County line, and subsequently, the people voted a \$1 million bond issue to pave the road with asphalt.<sup>6</sup>

Other counties similarly supported this scenic highway innovation. In 1914, Hood River County voters approved the sale of \$75,000 in bonds to initiate their portion of the road's construction. Finally, in 1915, Wasco County commissioners financed a survey to locate the route through their jurisdiction. By 1916, though, the state highway commission was reorganized and given a greater mandate over state highway construction, taking much of it out of local hands. Passage of the Federal Aid Road Acts of 1916 and 1921 gave the Oregon State Highway Commission matching funding to complete the HCRH through Wasco County, and eventually to complete the route to its eastern terminus at Pendleton, in Umatilla County, by the early 1920s. At the same time, the state, working with counties west of Portland, completed another portion of the Columbia River Highway to the sea at Astoria. Eventually it became part of the national highway system and was designated part of U.S. 30.<sup>7</sup>

By the late 1930s, construction of Bonneville Dam, a New Deal project aimed at providing flood control on the Columbia River and generating electricity, caused a realignment of a portion of the Historic Columbia River Highway near Tooth Rock and Eagle Creek, in eastern Multnomah County. It was evident that the old highway was too outdated to provide safe, efficient travel for modern motor traffic. By 1954 it was bypassed in its entirety from Troutdale to The Dalles by a new water-level route. This new road was subsequently upgraded to a four-lane divided roadway and eventually renamed Interstate 84. Only portions of the old route remained as a reminder of its early modern highway engineering accomplishments.

#### ONEONTA GORGE CREEK BRIDGE

The Historic Columbia River Highway's alignment from Crown Point, milepost 23.9, to Horsetail Falls Bridge, milepost 34.6, takes the highway along one of the largest concentrations of high waterfalls in North America. Near its eastern end lies Oneonta Creek and Gorge. The name "Oneonta," according to *Oregon Geographic Names*, originates in Oneonta, New York, and means "place of peace." The Oregon Steam Navigation Company ran a sidewheeler named *Oneonta* on the Columbia, above and below its cascades, in the 1860s and 1870s. Oneonta Creek and Gorge



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probably were named sometime after the boat began sailing on the river.<sup>8</sup>

In 1914, the Multnomah County Road Department and Samuel Lancaster sought to align the route so that it brought travelers to the mouth of Oneonta Gorge, a canyon so narrow that its basalt walls almost touch as they rise two hundred above the creek. Motorists could only reach the gorge's spectacular falls, some 900' back from the road, by walking upstream in the waters of the creek. The county easily could build a bridge to span the stream, but to carry the highway alignment past a nearby 200' bluff, a continuation of the gorge, proved difficult. The Oregon-Washington Railroad and Navigation Company (OWRN) had laid out its route along the Columbia River's south shore in the 1880s. Much of it followed the old Troutdale to The Dalles road begun in the 1870s. The OWRN's right-of-way crossed Oneonta Gorge Creek, then passed through a narrow opening between the river and the bluff before continuing east. With the close proximity of the river and the cliff, there was no additional space to permit carrying the HCRH around the outcropping. Determined to include Oneonta Gorge and Horsetail Falls as two of the HCRH's natural beauty spots, Lancaster resolved this dilemma by having a tunnel bored through the bluff.<sup>9</sup>

During the tunnel's construction, K. P. Billner, designing engineer for the Oregon State Highway Department, created plans for a bridge over Oneonta Gorge Creek for the Multnomah County Road Department. It was an 80'-0" reinforced-concrete deck girder trestle and was similar in design to the Horsetail Falls Bridge (HAER No. OR-36-M), one-third of a mile to the east on the Historic Columbia River Highway.

#### DESIGN AND DESCRIPTION

The Oneonta Gorge Creek Bridge is a four-span 80'-0" reinforced-concrete deck girder trestle. It is 24'-0" wide and has a roadway measuring 22'-0" curb-to-curb. The curb and guardrail form an integral unit, cantilevered out from the girder. The curb and square endposts have bushhammered inset panels, and the railing takes the form of 12"-wide slender concrete plaster arches, spaced two per span, with beveled rail caps, and interrupted by 12"-square chamfered and capped posts. Reinforcing wire was used in the rail caps, while metal "hyrib" lath was used in the plaster arches. This design is common on the Historic Columbia River Highway, also found on the West and East Multnomah Falls Viaducts (HAER Nos. OR-36-G and OR-36-J), and Horsetail Falls Bridge (HAER No. OR-36-M). A short viaduct that existed west of Vista House and Crown Point Viaduct (HAER No. OR-36-C) also had a similar railing.<sup>10</sup>

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Difficulty in finding firm pier foundations in Oneonta Gorge Creek's wide, flat, and gravelly stream caused K. P. Billner to design a structure with a series of small piers, or a "pile trestle," as he labeled it. Five sets of piling were sunk 15' to 20' below the streambed to bedrock with a small, 300 to 400 pound horse-powered hammer. The many small piers dispersed the bridge's dead and live loads without a heavy concentration at just a few places. The piling was cut off below the streambed's surface and the footings for the reinforced-concrete trestle piers were placed on top of them. As added precaution against a bridge failure from the force of Oneonta Gorge Creek's currents, which occasionally brought logs with them during spring floods, Billner decided to place concrete ties in the main channel. Under the outer spans, he had the stream bank riprapped at a  $1\frac{1}{2}$ :1' slope for added protection. Finally, Billner included in his design a pedestrian staircase, leading from the bridge's southwest corner to the streambed for motorists' ease in reaching the streambed for their treks to see the falls.<sup>11</sup>

Multnomah County contracted with The Construction Company of Portland on March 12, 1914 to construct the Oneonta Gorge Creek Bridge. It completed the structure by October 1, 1914 at a cost of \$2,498.36, and used 88 cubic yards of Class A (1:2:4) concrete.<sup>12</sup>

#### REPAIR AND MAINTENANCE

The Oneonta Gorge Creek Bridge served the Historic Columbia River Highway until 1948, when the Oregon State Highway Department closed Oneonta Tunnel because of rockfall hazards. The Union Pacific Railroad, the OWRN's successor, had worried for years about the tunnel collapsing onto its right-of-way and closing its main line. In the 1940s it utilized the opportunity to move its main line near Oneonta Gorge Creek to the north on fill provided by dredging the Columbia. This permitted the highway department to reroute the HCRH around the bluff at Oneonta, thus closing the tunnel. The Oregon State Highway Department's bridge designers, under the direction of Glenn S. Paxson, state bridge engineer, replaced the old bridge with a 48'-0" reinforced-concrete deck girder span, placed on the old railroad bridge's abutments. In 1948, the tunnel was mothballed and the old bridge and roadway approaching from the west became an enlarged tourist parking lot or wayside.<sup>13</sup>

At present, the old Oneonta Gorge Creek Bridge receives little maintenance because it is no longer on the highway. In the early 1990s, an Oregon Department of Transportation mason recast the concrete plaster outer guardrail on the West and East Multnomah Falls viaducts and on the Horsetail Falls Bridge as

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part of a long-term rehabilitation program for historic road resources along the HCRH. The Oneonta Gorge Creek Bridge's railings, however, remain untouched and continue to deteriorate. The mason, however, has rebuilt the crumbling staircase that leads from the bridge to the streambed because Oneonta Gorge is still a destination for many HCRH tourists.

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ENDNOTES

<sup>1</sup>For good syntheses of the Pacific Northwest good roads movement, see John Kevin Rindell, "From Ruts to Roads: The Politics of Highway Development in Washington State" (M.A. thesis, Washington State University, 1987) and Hugh M. Hoyt, Jr., "The Good Roads Movement in Oregon, 1900-1920" (Ph.D. diss., University of Oregon, 1966); Oral Bullard, *Lancaster's Road: The Historic Columbia River Scenic Highway* (Beaverton, OR: TMS Book Service, 1982): 31; Ronald J. Fahl, "S. C. Lancaster and the Columbia River Highway: Engineer as Conservationist," *Oregon Historical Quarterly* 74, no. 2 (June 1973): 112.

<sup>2</sup>Fahl, "S. C. Lancaster and the Columbia River Highway," 105-07.

<sup>3</sup>John Arthur Elliott, "The Location and Construction of the Mitchell Point Section of the Columbia River Highway" (C.E. thesis, University of Washington, 1929): 3.

<sup>4</sup>Samuel C. Lancaster to Amos S. Benson, 7 February 1914, folder "Multnomah County, 1914," box 4, RG 76A-90, Oregon State Archives, Salem.

<sup>5</sup>Dwight A. Smith, "Columbia River Highway Historic District: Nomination of the Old Columbia River Highway in the Columbia Gorge to the National Register of Historic Places, Multnomah, Hood River, and Wasco Counties, Oregon" (Salem, OR: Oregon Department of Transportation, Highway Division, Technical Services Branch, Environmental Section, 1984): 3.

<sup>6</sup>Ronald J. Fahl, "S. C. Lancaster and the Columbia River Highway: Engineer as Conservationist," *Oregon Historical Quarterly* 74, no. 2 (June 1973): 111; Samuel C. Lancaster, "The Revelation of Famous Highways: A Symposium," in *American Civic Annual* (n.p., 1929): 109.; see photograph in the Oregon Historical Society collection, negative no. 38744; C. Lester Horn, "Oregon's Columbia River Highway," *Oregon Historical Quarterly* 66, no. 3 (September 1965): 261.

<sup>7</sup>*Second Annual Report of the Engineer of the Oregon State Highway Commission* (Salem, 1916): 26-30.

<sup>8</sup>Lewis A. McArthur, *Oregon Geographic Names*, 6th ed., revised and enlarged by Lewis L. McArthur (Portland: Oregon Historical Society Press, 1992): 635.

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<sup>9</sup>"The Columbia Highway in Multnomah County," by Samuel C. Lancaster, in *First Annual Report of the Highway Engineer* (Salem, OR, 1914): 65-66; Fred Lockley, *History of the Columbia River Valley, from The Dalles to the Sea* (Chicago: S. J. Clarke Publishing Co., 1928): 835-36.

<sup>10</sup>Only a poor quality microfiche copy of an elevation and detail drawing of Oneonta Gorge Creek Bridge exists, see Bridge 4542, Microfiched Correspondence Files, Bridge Section, ODOT, Salem. Instead, see original ink-on-linen of a nearly identical bridge, "Pile Trestle over Horse Tail Creek," Drawing No. 278, in Bridge No. 4543, Maintenance Files, Bridge Section, ODOT, Salem; Samuel Christopher Lancaster, *The Columbia: America's Great Highway through the Cascade Mountains to the Sea*, 2d ed. (author, 1916): 108.

<sup>11</sup>"Pile Trestle over Horse Tail Creek," Drawing No. 278, in Bridge No. 4543, Maintenance Files, Bridge Section, ODOT, Salem; K. P. Billner to S. C. Lancaster, Consulting Engineer, 30 June 1914, in "Columbia River Highway--K. P. Billner, Resident Engineer, 1914," 2/21, Mss 2607, Oregon Historical Society, Portland; "Reinforced Concrete Bridges on the Columbia Highway in Multnomah County," *First Annual Report of the Highway Engineer* (Salem, OR: 1914): 189.

<sup>12</sup>The writer of "Reinforced Concrete Bridges on the Columbia Highway in Multnomah County," in *First Annual Report of the Highway Engineer* (Salem, 1915) stated that the Pacific Bridge Company of Portland constructed the eight structures east of Latourell Creek Bridge, yet "Exhibit B" in the same report lists The Construction Company of Portland as the contractor for Latourell Creek Bridge, Shepperd's Dell Bridge, Oneonta Gorge Creek Bridge, and Horsetail Falls Bridge. See pages 189-90 and Exhibit B. In addition, correspondence in the Multnomah County Roadmaster Records, Mss 2607, Oregon Historical Society suggests the latter interpretation.

<sup>13</sup>See "National Register of Historic Places Inventory Nomination Form--Columbia River Highway Historic District," by Dwight A. Smith (Oregon Department of Transportation, 1983): 39; and see also Oneonta Gorge Creek Bridge, Bridge No. 7108A, Bridge Maintenance Files, Bridge Section, ODOT, Salem.

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#### DATA LIMITATIONS

The Oneonta Gorge Creek Bridge received some press during the HCRH's construction, but information concerning its service through 1948 no longer exists. Oregon State Highway Department correspondence concerning closing Oneonta Tunnel in 1948 included some information on the nearby bridge.